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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,268	12/10/2001	Philip Victor Harman	006020.00016	5753

22907 7590 09/27/2004

BANNER & WITCOFF  
1001 G STREET N W  
SUITE 1100  
WASHINGTON, DC 20001

EXAMINER
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DESIR, JEAN WICEL

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/009,268		HARMAN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Jean W. Désir		2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/10/01, Pre-Amendment.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-46, 52-54, 56-58 and 60-67 is/are allowed.
- 6) ☒ Claim(s) 47, 49-51, 55, 59, 68, 70 and 71 is/are rejected.
- 7) ☒ Claim(s) 48 and 69 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 47, 49-51, 55, 59, 68, 70, 71 are rejected under 35 U.S.C. 102(b) as being anticipated by Birch (4,941,045).

#### Claim 47:

The claimed “determining a value of a first pixel located above an interpreted pixel; determining a value of a second pixel located below said interpreted pixel” is disclosed, see Fig. 2 items 101, 102, Fig. 1;

the claimed “calculating a difference value between said first and second pixels” is disclosed see Fig. 2 items 104, 107;

the claimed “utilizing said difference value to index a lookup table and obtain a table value” is disclosed, see Fig. 2 item 107 (LOOK-UP TABLE);

the claimed “calculating an added value by adding said table value to the lesser of said first and second pixel values; and assigning said calculated value to said interpreted pixel” is disclosed, see Fig. 2 items 110, 107 (LOOK-UP TABLE).

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Claim 49 is disclosed, see Fig. 2 item 107 (LOOK-UP TABLE).

Claims 50, 51 are disclosed, see Fig. 2 items 104, 107, and LOOK-UP TABLE.

Claim 55 is disclosed, see Figs. 2, 5 item LOOK-UP TABLE.

Claim 59 is disclosed, see Fig. 2 items 104-108, 110.

**Claim 68** is rejected for the same reasons as claim 47.

Claims 70, 71 are rejected for the same reasons as claim 55, 59.

### ***Allowable Subject Matter***

3. Claims 48, 69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 31-46, 53, 57, 54, 58, 52, 56, 60-67 are allowed, because the prior art does not teach or would not have rendered obvious: A system for determining an interpreted line in a line doubling system, such as claimed in claims 31-46, 53, 57, 54, 58, 52, 56, 60-67, the system including: determining a Root Mean Square (RMS) value of the pixels on adjacent lines; and utilizing the RMS value to create the interpreted line. The closest prior art, Birch (US 4,941,045) and Gupta et al (US 5,852,475) disclose conventional line doubling system, either singularly or in combination, fail to anticipate or render obvious the present invention as claimed.

### **Conclusion**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean W. Désir whose telephone number is (703) 308 9571. The examiner can normally be reached on 5/4/9 - First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (703) 305 4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**JWD**  
**Sep. 20, 04**

  
**MICHAEL H. LEE**  
**PRIMARY EXAMINER**